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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,203	03/25/2005	Horst Bauer	268034US0PCT	4774

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EXAMINER	
HA, JULIE	

ART UNIT	PAPER NUMBER
1654	

NOTIFICATION DATE	DELIVERY MODE
06/11/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/529,203	BAUER ET AL.	
	Examiner	Art Unit	
	Julie Ha	1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60* is/are pending in the application.

4a) Of the above claim(s) *3,5 and 50-54* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,6-49 and 55-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Election/Restriction filed on May 21, 2007 is acknowledged. Claims 1-60 are pending in this application.

Restriction

1. Applicant's election with traverse of Group I (claims 1-47 and 55-60) drawn to a pharmaceutical gel preparation, a method for producing a pharmaceutical preparation and a method for treating a patient with a pharmaceutically active peptide compound and the election of species of D-63153 as the ionic peptide compound, GnRH antagonist, and sodium chloride as the inorganic salt in the reply filed on May 21, 2007 is acknowledged. After further review of the restriction requirement, it has been determined that certain claims should have been examined with claimed method because the species correspond to the genus claim. Claim 43 links claims 48-53 of the method claims and claim 54. The previous restriction is restructured and withdrawn in part. Restriction set forth as follows:

a. Group I, claim(s) 1-42, 48-53 and 55-60, drawn to a pharmaceutical gel preparation, a method for producing a pharmaceutical preparation and a kit for producing a pharmaceutical preparation and a method for treating a patient with a pharmaceutically active peptide compound.

b. Group II, claim(s) 54, drawn to a method for modifying the reproductive function in a patient by subcutaneous or intramuscular administration of a pharmaceutical preparation.

Linking Claim

2. Claims 43-47 link(s) inventions I (specifically claims 48-53) and II. The restriction requirement between the linked inventions is **subject to** the nonallowance of the linking claim(s), claims 43-47. Upon the indication of allowability of the linking claim(s), the restriction requirement as to the linked inventions **shall** be withdrawn and any claim(s) depending from or otherwise requiring all the limitations of the allowable linking claim(s) will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104 **Claims that require all the limitations of an allowable linking claim** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

Applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, the allowable linking claim, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Where a restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

Election of species in the previous office action is maintained. Thus, Group I has been amended to include claims 48-53. As indicated below, claims 1-2, 4, 6-49 and 55-60 have been examined as corresponding to the elected Group and Species.

3. The traversal is on the ground(s) that no adequate reasons and/or examples have been provided to support a conclusion of patentable distinctiveness between the identified groups. Furthermore, the Applicants argue that it has not been shown a burden exists in searching the claims of the three groups. This is not found persuasive because the instant application is a 371 of PCT/EP03/10732 and the lack of unity is clearly defined in the previous office action mailed on April 20, 2007. The special technical feature of the instant application is a method for treating a hormone-dependent disorder in a patient by administering to the patient in need a pharmaceutical gel preparation comprising at least one pharmaceutically active ionic peptide compound. This is taught by Bauer et al (PG Pub 2002/0039996) wherein a gelanic forms for the parenteral administration of peptides prone to aggregation, in particular of LHRH analogues or LHRH antagonists and agonists (see paragraph [0001]). The reference further teaches that they are of use of the preparations in the prevention and therapy of all sex hormone-dependent conditions and diseases which can be influenced by LHRH analogues, i.e., LHRH agonist and antagonists (see paragraph [0020] and see claims 16 and 17). The MPEP states the following: An international application should related to only one invention or, if there is more than one invention, the inclusion of those inventions in one international application is only permitted if all inventions are so linked as to form a single general inventive concept (PCT Rule 13.1)...unity of invention exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" is defined in PCT Rule 13.2 as meaning those

technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art. See MPEP 1850 [R-5]. Since lack of unity exists, the Restriction requirement is proper.

4. The requirement is still deemed proper and is therefore made FINAL. Claim 54 is withdrawn from further consideration, pursuant to 37 CFR 1.142(b), as being drawn to non-elected Invention, there being no allowable generic or linking claim. Claims 3, 5 and 50-53 are withdrawn from further consideration as being drawn to a non-elected species. Since the elected species appear to be a monovalent cationic peptide and a GnRH antagonist, claims 3 and 5 are withdrawn. Search was conducted on the elected species of D-63153 as GnRH antagonist peptide, sodium chloride as inorganic salt, and prostate cancer as the hormone-dependent disorder appears free of prior art. The search was extended to the broad Markush claim of claim 10 and prior art was found. Claims 1-2, 4, 6-49 and 55-60 are examined on the merits in this office action.

Objection-Minor Informalities

5. The title is objected to because the title is too long. The title is limited to 2-7 words maximum. A new title is required that is clearly indicative of the invention to which the claims are directed.

6. The specification is objected to for the following reasons: The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use. The Applicants have not provided a detailed description of the several views of the drawing(s) in the

specification. Detailed description must be in the specification. See MPEP § 608.01(f) and 37 CFR 1.74.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Rejection-35 U.S.C. 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2, 4, 6-10, 12-18, 23-24, 27-28, 33, 36-37, 43-49 and 55-57 are rejected under 35 U.S.C. 102(b) as being anticipated by Gefter et al (US Patent # 6180608).

9. The instant claims are drawn to a method for producing a pharmaceutical preparation comprising the steps a) bringing together an amount of at least one pharmaceutically active peptide compound in lyophilized form and an aqueous solution of an inorganic or acetic acid salt and b) mixing the components. The claims are further drawn to step of sterilization of the peptide formulation by irradiation with gamma rays or electron beams.

10. Gefter et al teach pharmaceutical compositions comprising a stable water-insoluble complex composed of a peptidic compound, preferably a pharmaceutically active peptidic compound, and a carrier macromolecule that allows for sustained delivery of the peptidic compound in vivo upon administration of the complex. The reference further teaches that the complex can permit continuous delivery of a pharmaceutically active peptidic compound to a subject for prolonged periods of time, e.g., one month, two months, three months and the like (see column 1, lines 43-52 and column 6, lines 12-13). This reads on claims 1, 33 and 44-47. Claims 44-47 and 55-57 do not recite further structural attributes that results in the sustained pharmaceutical activity for at least 12 weeks and colloidal dispersion and changes in its viscosity as function of time, respectively . The prior art discloses same peptide composition, therefore the sustained pharmaceutical activity and colloidal dispersion and its viscosity

are inherent properties of the peptide. Thus, this meets the limitations of claims 44-47 and 55-57. Furthermore, the reference teaches that the complex is formed by combining the peptidic compound and the carrier macromolecule under conditions such that a substantially water-insoluble complex is formed, e.g., aqueous solutions of the peptidic compound and carrier macromolecule are mixed until the complex precipitates. The complex may be in the form of a solid (e.g., a paste, granules, a powder or a lyophilizate)...can be pulverized finely enough to form stable liquid suspensions or semi-solid dispersions (see column 1, lines 57-65). This reads on claim 33 and claim 36 in part. The reference further teaches that the peptidic compound of the water-insoluble complex is an LHRH analog, and LHRH antagonist (see column 1, lines 66-67 and column 2, line 1). Furthermore, the reference teaches that the complex is suitable for sterilization, such as by gamma irradiation or electron beam irradiation, prior to administration in vivo (see column 2, lines 3-5). This reads on claims 36 and 37. Further, the reference teaches a method for treating a subject for a condition (prostate cancer) treatable with an LHRH analog by administering to the subject an LHRH-analog-containing composition (see column 2, lines 6-11). This reads on claims 48-49. The LHRH analogs are LHRH antagonists, and include antide, Cetrorelix and the like (see column 4. lines 6-27). This reads on claims 6-10. The reference further discloses that multivalent cationic peptidic compound and multivalent anionic peptidic compound refer to peptidic compound comprising a multiplicity of positive or negative charges (see column 3, lines 46-49). This reads on claims 2 and 4. Furthermore, the reference teaches that the pharmaceutical formulations comprise additional pharmaceutically

acceptable carriers and/or excipients...the carrier is suitable for intravenous, intramuscular, subcutaneous or parenteral administration (e.g., by injection) (see column 7, lines 65-67 and column 8, lines 1-7). This reads on claim 43. The reference further teaches that a non-,limiting range of an LHRH analog is 0.01 mg to 10 mg/kg (see column 10. lines37-38) and Examples 2-4 discloses 25 mg of peptidic compound dissolved in water (Example 2), 50 mg of peptidic compound dissolved in mannitol and catboxymethylcellulose (Example 3) and 25 mg of peptidic compound dissolved in water and added to sodium alginate (Example 4). This reads on claims 15-18. The reference further teaches that the reconstitution vehicle to be used in clinical studies is 0.9% sodium chloride (see Example 14). Therefore, the prior art meets the limitations of claims 1-2, 4, 6-10, 12-18, 23-24, 27-28, 33, 36-37, 43-49 and 55-57.

Rejection-35 U.S.C. 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 11, 19-22, 25-26, 29-32 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gefter et al (US Patent # 6180608) as applied to claims 1-2, 4, 6-10, 12-18, 23-24, 27-28, 33, 36-37, 43-49 and 55-57 above, and further in view of Bauer et al (PG Pub 2002/039996).

15. The instant claims are drawn to a pharmaceutical preparation wherein the pharmaceutically active ionic peptide compound is the GnRH antagonist D-63153 in an amount of about 5 to about 50 mg per ml of the total amount of the pharmaceutical preparation, and the NaCl is from about 0.05% to about 0.5% (W/V) and the production of the peptide formulation takes place with use of aseptic procedures.

16. As described supra, Gefter et al teach pharmaceutical compositions comprising a stable water-insoluble complex composed of a peptidic compound, preferably a pharmaceutically active peptidic compound, and a carrier macromolecule that allows for sustained delivery of the peptidic compound in vivo upon administration of the complex.

The reference further teaches that the complex can permit continuous delivery of a pharmaceutically active peptidic compound to a subject for prolonged periods of time, e.g., one month, two months, three months and the like (see column 1, lines 43-52 and column 6, lines 12-13). This reads on claims 1, 33 and 44-47. Claims 44-47 and 55-57 do not recite further structural attributes that results in the sustained pharmaceutical activity for at least 12 weeks and colloidal dispersion and changes in its viscosity as function of time, respectively . The prior art discloses same peptide composition, therefore the sustained pharmaceutical activity and colloidal dispersion and its viscosity are inherent properties of the peptide. Thus, this meets the limitations of claims 44-47 and 55-57. Furthermore, the reference teaches that the complex is formed by combining the peptidic compound and the carrier macromolecule under conditions such that a substantially water-insoluble complex is formed, e.g., aqueous solutions of the peptidic compound and carrier macromolecule are mixed until the complex precipitates. The complex may be in the form of a solid (e.g., a paste, granules, a powder or a lyophilizate)...can be pulverized finely enough to form stable liquid suspensions or semi-solid dispersions (see column 1, lines 57-65). This reads on claim 33 and claim 36 in part. The reference further teaches that the peptidic compound of the water-insoluble complex is an LHRH analog, and LHRH antagonist (see column 1, lines 66-67 and column 2, line 1). Furthermore, the reference teaches that the complex is suitable for sterilization, such as by gamma irradiation or electron beam irradiation, prior to administration in vivo (see column 2, lines 3-5). This reads on claims 36 and 37. Further, the reference teaches a method for treating a subject for a condition (prostate

cancer) treatable with an LHRH analog by administering to the subject an LHRH-analog-containing composition (see column 2, lines 6-11). This reads on claims 48-49. The LHRH analogs are LHRH antagonists, and include antide, Cetrorelix and the like (see column 4. lines 6-27). This reads on claims 6-10. The reference further discloses that multivalent cationic peptidic compound and multivalent anionic peptidic compound refer to peptidic compound comprising a multiplicity of positive or negative charges (see column 3, lines 46-49). This reads on claims 2 and 4. Furthermore, the reference teaches that the pharmaceutical formulations comprise additional pharmaceutically acceptable carriers and/or excipients...the carrier is suitable for intravenous, intramuscular, subcutaneous or parenteral administration (e.g., by injection) (see column 7, lines 65-67 and column 8, lines 1-7). This reads on claim 43. The reference further teaches that a non-,limiting range of an LHRH analog is 0.01 mg to 10 mg/kg (see column 10. lines37-38) and Examples 2-4 discloses 25 mg of peptidic compound dissolved in water (Example 2), 50 mg of peptidic compound dissolved in mannitol and catboxymethylcellulose (Example 3) and 25 mg of peptidic compound dissolved in water and added to sodium alginate (Example 4). This reads on claims 15-18. The reference further teaches that the reconstitution vehicle to be used in clinical studies is 0.9% sodium chloride (see Example 14). Therefore, the prior art meets the limitations of claims 1-2, 4, 6-10, 12-18, 23-24, 27-28, 33, 36-37, 43-49 and 55-57. The difference between the reference and the instant claims are that the reference does not teach D-63153 and differing NaCl concentrations.

17. However, Bauer et al disclose a pharmaceutical administration forms suitable for parenteral administration, which contains peptides prone to aggregation in the form of their acetate, gluconate, glucuronate, lactate, citrate, ascorbate, benzoate, or phosphate salts in dissolved or dispersed form (see abstract). Furthermore, the reference discloses that the pharmaceutical administration forms can be present in dissolved or dispersed form in water or in aqueous solvent mixtures (see paragraph [0012]). Additionally, the reference discloses that the peptides employed are LHRH antagonists antide, A-75998, ganirelix and Nal-Glu antagonist, but in particular cetrorelix, antarelix and the antagonists according to the U.S. Patent # 5942493 and DE 19911771.3. (see paragraph [0014] and US Patent # 7005418, column 3, lines 53-58). D-63153 is an antagonist disclosed in DE 19911771.3. Furthermore, the reference discloses that preparation of sterile solutions of LHRH antagonist for parenteral administration is by means of filtration, especially at high concentration (see paragraph [0009]). Additionally, the reference discloses that the administration of pharmaceutically active peptides is the parenteral pharmaceutical form...in the form of reconstituted lyophilizates of soluble peptide salts and to microparticles, microcapsules or implants (see paragraph [0010]). Furthermore, the reference discloses that area of use of the preparations is in the prevention and therapy of all sex hormone-dependent conditions and diseases, which can be influenced by LHRH agonist and antagonists...benign prostate hyperplasia, carcinoma of the prostate, precocious puberty, hirsutism, endometrial hyperplasia, uterine myomatosis, breast cancer, etc (see paragraphs [0020] and [0021] and claims 16 and 17). Furthermore, the reference discloses rat animal experiment (see paragraph

[0041] and Tables 8a, 8b and 9). Please note that the reference discloses the disorders that are claimed in claims 50-53 of instant application.

18. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Gefter et al and Bauer et al because both prior arts teach pharmaceutical gel formulation incorporating GnRH antagonist. There is a motivation to substitute D-63153 for other GnRH antagonists since they are all recognized GnRH antagonist and one would expect the same activity. There is a reasonable expectation of success to substitute D-63153 for other GnRH antagonist, since both prior arts disclose Antide and Cetrorelix as examples of GnRH antagonists that can be formulated into composition in an aqueous solvent. Further, there is a reasonable expectation of success since 0.9% sodium chloride is used to reconstitute for clinical studies (see Example 14 of patent '608) and sustained delivery formulation for administering pharmaceutically active peptides in vivo continuously for prolonged time periods are achieved by patent '608. The references are silent as to the range of NaCl concentrations.

19. However, the MPEP states the following: Generally, differences in concentration or temperature will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration or temperature is critical. *"[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation."* *In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)* (Claimed process which was performed at a temperature between 40°C and 80°C and an acid concentration

between 25% and 70% was held to be prima facie obvious over a reference process which differed from the claims only in that the reference process was performed at a temperature of 100°C and an acid concentration of 10%.); see also Peterson, 315 F.3d at 1330, 65 USPQ2d at 1382 ("*The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages.*"); *In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969)* (Claimed elastomeric polyurethanes which fell within the broad scope of the references were held to be unpatentable thereover because, among other reasons, there was no evidence of the criticality of the claimed ranges of molecular weight or molar proportions.). For more recent cases applying this principle, see Merck & Co. Inc. v. Biocraft Laboratories Inc., 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989); *In re Kulling*, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990); and *In re Geisler*, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997). Therefore, there is a reasonable expectation of success to optimize the NaCl concentration, since "*The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages.*"

20. Claims 38-42 and 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gefter et al (US Patent #6180608) in view of Bauer et al (PG Pub 2002/039996) as applied to claims 1-2, 4, 6-37, 43-49 and 55-57 above, and further in view of Engel et al (US Patent # 5663145).

21. The instant claims are drawn to a kit for producing a pharmaceutical preparation, comprising a pharmaceutically active D-63153 (about 25 mg) in lyophilized form and of an aqueous solution of an inorganic or acetic acid salt, mannitol, and sodium chloride in about 0.1% weight/volume.

22. As described supra, Gefter et al and Bauer et al teach pharmaceutical formulation comprising GnRH antagonist in aqueous form. The difference between the references and the instant claims is that the references do not teach a kit.

23. However, Engel et al teach substances available for treating hormone-dependent malignant diseases (see column 1, lines 6-7). Further, the reference teaches that Cetrorelix (INN) is an antagonist for LHRH (see column 1, line 15). The reference discloses that in clinical trials, a daily dose of 10 mg showed a complete suppression of the hormone concentration to castration level (see column 1, lines 20-22). Additionally, the reference discloses the dosage regimen of the pharmaceutical composition: an intial dose with the amount of 1-60 mg in a lyophilisate ampoule or several lyophilisate ampoules; lyophilisate ampoules in a slow-release form with a rate of delivery of 0.1-10 mg/day for the whole period of treatment; or lyophilisate ampoules which contain the amount of active substance, which is not in a slow-release form, in an amount of 0.1-10 mg (see column 1, lines 42-54). The reference further teaches the aseptic procedures and lyophilizing the Cetrorelix solution (see column 2, lines 24-40). Furthermore, the reference teaches a kit comprising LHRH antagonist, Cetrorelix (see claims 1-3) and the method of treating a hormone-dependent condition (prostate cancer) comprising administering LHRH antagonist (Cetrorelix) (see claims 7 and 13).

24. Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Gefter and Bauer and Engel because the prior arts teach the pharmaceutical formulation of GnRH antagonists in liquid form. All three prior arts teach the method of treating a hormone-dependent condition (prostate cancer) by administering a pharmaceutical composition of Cetrorelix. Bauer further discloses D-63153 as one of the peptides employed (see paragraph [0014] and see US Patent # 7005418, column 3, lines 53-58). One of ordinary skill in the art would be motivated to substitute D-63153 for other GnRH antagonists since they are all recognized GnRH antagonist according to the prior arts, and thus, one would expect the same activity. There is a reasonable expectation of success since the Bauer and Engel teach the use of the formulation for the treatment of hormone-dependent disorder, specifically prostate cancer. Furthermore, there is a reasonable expectation of success since GnRH antagonists have similar properties, such as solubility, and are used to treat the same disorders.

Conclusion

25. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Ha whose telephone number is 571-272-5982. The examiner can normally be reached on Mon-Fri, 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia Tsang can be reached on 571-272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julie Ha
Patent Examiner
AU 1654

6/5/12
ANISH GUPTA
PRIMARY EXAMINER